REMARKS/ARGUMENTS

After entry of this amendment, claims 28-54 will be pending in this claim. Claims 28 and 36 have been amended. Claim 30 has been amended to correct a typographical oversight. Support for the amended claims can be found in the specification. No new matter has been added.

Claims 28-36, 38, and 46-54 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Omtzigt, United States patent number 6,067,643 in view of Van Hook et al., United States patent number 6,239,810 (Van Hook) and Saito et al., United States patent number 6,940,519 (Saito). Reconsideration of these rejections in light of these amendments and remarks is respectfully requested. Claims 39-45 have been allowed. Claim 37 is objected to, but would be allowed if written in independent form.

Claims 29 and 30 stand rejected under 35 U.S.C. 112. The amendment to claim 28 has obviated the rejection for claim 29. Claim 30 has also been amended accordingly.

Claim 31

Claim 31 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Omtzigt in view of Van Hook and Saito. But these references do not show or suggest each and every element of this claim. For example, claim 31 recites "wherein the texture circuit retrieves a plurality of texture descriptors from an external memory coupled to the frame buffer interface." The cited references do not provide this feature.

The pending office action cites Figure 22 and column 50, lines 15-49 of Van Hook as providing the required texture descriptors. (See pending office action, page 3, lines 6-8.) But this passage does not provide for retrieving texture descriptors from an external memory.

Van Hook stores up to eight texture descriptors in a texture coordinate unit 530. (See Van Hook, column 50, lines 25-28.) Figure 20 of Van Hook shows the texture coordinate unit 530 as being part of the texture unit 506 on the display processor. Thus, Van Hook shows texture descriptors stored in the display processor, not in an external memory as required by the claim.

The pending office action further states that it would be obvious to store these texture descriptors in the video memory Saito. (See pending office action, page 3, lines 17-21.) But again, Van Hook only stores eight texture descriptors. (See Van Hook, column 50, lines 25-28.) When such a low number of texture descriptors are being stored, there is no reason to move the texture descriptor off-chip into an external memory. For example, the pending application points out that 16 texture descriptors are stored in a specific conventional graphics processor. (See pending application, paragraph 2.) Accordingly, there is no motivation to store the texture descriptors of Van Hook in the video memory of Saito.

The pending office action does state that the motivation to store the texture descriptors of Van Hook in the video memory of Saito is to "more efficiently use the graphics memory" and to "further avoid the possibility of extra (unused) memory." It is not clear where this motivation appears in any of the cited references. Further, it is not clear what the downside of having unused memory is. Rather, being able to use a smaller external memory is typically advantageous in graphics systems, since this results in lower system costs.

Moreover, the combination of Van Hook and Saito does not result in providing texture descriptors stored in an external memory. Van Hook teaches storing texture descriptors in a display processor. Saito teaches storing textures in a video memory. (See Saito, Figure 4.) Combining these references results in a system where texture descriptors are stored in a display processor and textures themselves are stored in an external memory.

For at least these reasons, Claim 31 should be allowed.

Other claims

Claim 28, 36, and 46 should be allowed for similar reasons as claim 31. The other rejected claims depend on one of these claims and should be allowed for at least the same reasons, and for the additional limitations they recite.

Application number 10/696,848   <u>PATENT</u>
Amendment dated May 2, 2006
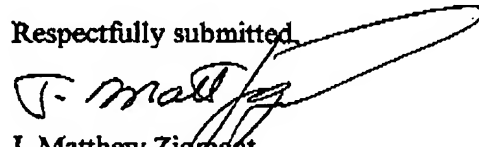Reply to office action mailed November 2, 2005

<u>CONCLUSION</u>

In view of the foregoing, Applicants believe all claims now pending in this

application are in condition for allowance. The issuance of a formal notice of allowance at an

early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of

this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

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